



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

8701 South Gessner, Suite 1110
Houston, TX 77074

NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 8, 2008

Craig Pierson
Vice President Operations
Marathon Pipeline LLC
539 South Main Street
Findlay, Ohio 45840

CPF 4-2008-5013M

Dear Mr. Pierson:

On May 7-11 and 21-25, 2007, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code, inspected your procedures for your Integrity Management Program (IMP) in Findlay, Ohio.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within Marathon Pipeline LLC [MPL] plans or procedures, as described below:

1. **§195.452 Pipeline integrity management in high consequence areas.**
 - (e) **What are the risk factors for establishing an assessment schedule (for both the baseline and continual integrity assessments)? ...**
 - (1) **An operator must establish an integrity assessment schedule that prioritizes pipeline segments for assessment (see paragraphs (d)(1) and (j)(3) of this section). An operator must base the assessment schedule on all risk factors that reflect the risk conditions on the pipeline segment. The factors an operator must consider include, but are not limited to:**
 - (i) **Results of the previous integrity assessment, defect type and size that the assessment method can detect, and defect growth rate;**
 - (ii) **Pipe size, material, manufacturing information, coating type and condition, and seam type;**
 - (iii) **Leak history, repair history and cathodic protection history;**
 - (iv) **Product transported;**
 - (v) **Operating stress level;**
 - (vi) **Existing or projected activities in the area;**
 - (vii) **Local environmental factors that could affect the pipeline (e.g., corrosivity of soil, subsidence, climatic);**

- (viii) geo-technical hazards; and (ix) Physical support of the segment such as by a cable suspension bridge.
- (2) Appendix C of this part provides further guidance on risk factors.

(f) What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:

- (6) Identification of preventive and mitigative measures to protect the high consequence area (see paragraph (i) of this section)

(i) What preventive and mitigative measures must an operator take to protect the high consequence area?

(2) Risk analysis criteria. In identifying the need for additional preventive and mitigative measures, an operator must evaluate the likelihood of a pipeline release occurring and how a release could affect the high consequence area. This determination must consider all relevant risk factors, including, but not limited to:

- (i) Terrain surrounding the pipeline segment, including drainage systems such as small streams and other smaller waterways that could act as a conduit to the high consequence area;
- (ii) Elevation profile;
- (iii) Characteristics of the product transported;
- (iv) Amount of product that could be released;
- (v) Possibility of a spillage in a farm field following the drain tile into a waterway;
- (vi) Ditches along side a roadway the pipeline crosses;
- (vii) Physical support of the pipeline segment such as by a cable suspension bridge;
- (viii) Exposure of the pipeline to operating pressure exceeding established maximum operating pressure.

- A. MPL must modify its application for using the averaged multi-threat Likelihood of Failure (LOF) of a pipeline segment for calculating an Overall Consequence Score to more accurately calculate the Release Volume Score and characterize the potential consequences to specific HCAs. MPL's DRAS risk model uses the multi-threat averaged/normalized/weighted release volume as part of the Release Volume Score portion, and it is then multiplied by the threat-specific Total Threat Score to arrive at Total Risk Scores or Risk of Failure (ROF). Using the averaged LOF for calculating the final ROF score is inconsistent and appears to result in overall scores that will underestimate the maximum Release Volume Score and inadequately characterize the potential consequences to specific HCAs.
- B. MPL must modify the process for calculating the Release Severity Score which utilizes a Probability of Rupture factor that is a function of the operating stress level. The stress based factor does not appear to take into account the presence of defects in the pipe that lead to potential ruptures. The terminology "Probability of Rupture" should be changed to "Operating Pressure Influence Factor" to more accurately characterize the factor's impact.

- C. MPL must modify its process that relies on a ten-year rolling average of specific leak history to determine risk algorithm threat category weightings particularly for threats that may not occur frequently but have the potential for substantial releases to adequately characterize the potential consequence to affected HCAs.

2. §195.452 Pipeline integrity management in high consequence areas.

(f) (6) see above

(i) What preventive and mitigative measures must an operator take to protect the high consequence area?

(1) General requirements. An operator must take measures to prevent and mitigate the consequences of a pipeline failure that could affect a high consequence area. These measures include conducting a risk analysis of the pipeline segment to identify additional actions to enhance public safety or environmental protection....

MPL must modify its IMP Prioritization Tool (IPT) process for calculating the expected impact of proposed P&M measures to prevent and mitigate the consequences of a pipeline failure that could affect a high consequence area. MPL's approach for screening pipeline segments is based on pipeline segment Risk of Failure "benchmarks" which may cause subsequent P&MM evaluations to be inconsistent with the IM rule requirement.

3. §195.452 Pipeline integrity management in high consequence areas.

(f) see above

(5) A continual process of assessment and evaluation to maintain a pipeline's integrity (see paragraph (j) of this section);

(j) What is a continual process of evaluation and assessment to maintain a pipeline's integrity?

(1) General. After completing the baseline integrity assessment, an operator must continue to assess the line pipe at specified intervals and periodically evaluate the integrity of each pipeline segment that could affect a high consequence area.

(2) Evaluation. An operator must conduct a periodic evaluation as frequently as needed to assure pipeline integrity. An operator must base the frequency of evaluation on risk factors specific to its pipeline, including the factors specified in paragraph (e) of this section. The evaluation must consider the results of the baseline and periodic integrity assessments, information analysis (paragraph (g) of this section), and decisions about remediation, and preventive and mitigative actions (paragraphs (h) and of this section).

MPL must add sufficient specificity to the process for integrating IM data in the periodic evaluation to ensure consistent application. Periodic Evaluation must consider a wide range of available information and risk factors specific to its pipeline system.

4. §195.452 Pipeline integrity management in high consequence areas.

(f) (5) see above

(j) see above

(5) Assessment methods. An operator must assess the integrity of the line pipe by any of the following methods. The methods an operator selects to assess low frequency electric resistance welded pipe or lap welded pipe susceptible to longitudinal seam failure must be capable of assessing seam integrity and of detecting corrosion and deformation anomalies

(iii) External corrosion direct assessment in accordance with §195.588.

§195.588 What standards apply to direct assessment?

(a) If you use direct assessment on an onshore pipeline to evaluate the effects of external corrosion, you must follow the requirements of this section for performing external corrosion direct assessment. This section does not apply to methods associated with direct assessment, such as close interval surveys, voltage gradient surveys, or examination of exposed pipelines, when used separately from the direct assessment process.

(b) The requirements for performing external corrosion direct assessment are as follows:

(1) General. You must follow the requirements of NACE Standard RP0502-2002 (incorporated by reference, see §195.3). Also, you must develop and implement an ECDA plan that includes procedures addressing pre-assessment, indirect examination, direct assessment, and post-assessment.

(2) Pre-assessment. In addition to the requirements in Section 3 of NACE Standard RP0502-2002, the ECDA plan procedures for pre-assessment must include –

(i) Provisions for applying more restrictive criteria when conducting ECA for the first time on a pipeline segment;

(ii) The basis on which you select at least two different, but complementary, indirect assessment tools to assess each ECDA region; and

(iii) If you utilize an indirect inspection method not described in Appendix A of NACE Standard RP0502-2002, you must demonstrate the applicability, validation basis, equipment used, application procedure, and utilization of data for the inspection method.

MPL must modify the ECDA process to provide for directly assessing above ground pipeline segments that could impact an HCA. Application of an ECDA “region” for above-ground piping is not consistent with rule-defined ECDA process for below-ground piping per the NACE RP0502-2002 standard and such approach is considered to be “other technology” that require a notification to PHMSA. Technical justify must be provided for processes such as these to ensure the integrity assessment method appropriately assesses the integrity of a specific pipeline segment.

5. §195.452 Pipeline integrity management in high consequence areas.

(f) (5) see above

(j) (5) see above

§195.588 see above

(3) Indirect examination. In addition to the requirements in Section 4 of NACE Standard RP0502-2002, the procedures for indirect examination of the ECDA regions must include—

(i) Provisions for applying more restrictive criteria when conducting ECDA for the first time on a pipeline segment;

(ii) Criteria for identifying and documenting those indications that must be considered for excavation and direct examination, including at least the following:

(A) The known sensitivities of assessment tools;

(B) The procedures for using each tool; and

(C) The approach to be used for decreasing the physical spacing of indirect assessment tool readings when the presence of a defect is suspected;

(iii) For each indication identified during the indirect examination, criteria for—

(A) Defining the urgency of excavation and direct examination of the indication; and

(B) Defining the excavation urgency as immediate, scheduled, or monitored; and

(iv) Criteria for scheduling excavations of indications in each urgency level.

MPL must modify its application of ECDA weighting factors specified in the “ECDA Indirect Inspection Severity Classification” implementing procedure. These factors are used to combine results from complementary tools, and a lack of guidance for their use has the potential to result in inconsistent classification of indirect examination indications (i.e., minor, moderate, severe).

6. §195.452 Pipeline integrity management in high consequence areas.

(f) (5) see above

(j) (5) see above

§195.588 see above

(4) Direct examination. In addition to the requirements in Section 5 of NACE Standard RP0502-2002, the procedures for direct examination of indications from the indirect examination must include—

(i) Provisions for applying more restrictive criteria when conducting ECDA for the first time on a pipeline segment;

(ii) Criteria for deciding what action should be taken if either:

(A) Corrosion defects are discovered that exceed allowable limits (Section 5.5.2.2 of NACE Standard RP0502-2002 provides guidance for criteria); or

(B) Root cause analysis reveals conditions for which ECDA is not suitable (Section 5.6.2 of NACE Standard RP0502-2002 provides guidance for criteria);

- (iii) Criteria and notification procedures for any changes in the ECDA plan, including changes that affect the severity classification, the priority of direct examination, and the time frame for direct examination of indications; and**
- (iv) Criteria that describe how and on what basis you will reclassify and re-prioritize any of the provisions specified in Section 5.9 of NACE Standard RP0502-2002.**

MPL must modify section MPLMNT127 of their IMP manual to include "more restrictive criteria" requirement for all first-time ECDA application. Currently, the process only requires more restrictive criteria for lines with a poor corrosion control history. The §195.588 and NACE 0502-2002 requirements are for more restrictive criteria to be applied to all first-time applications of ECDA as an assessment method without regards to the pipe's history.

In regard to Items 1B, 2 and 5 listed above, MPL provided finalized documentation via a meeting and report to PHMSA on July 31, 2007, of various changes made to the IMP. After considering the material provided, PHMSA deemed the modifications adequate, and no further action is required in response to Items 1B, 2 and 5 of this Notice.

Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.237. Enclosed as part of this Notice is a document entitled Response Options for Pipeline Operators in Compliance Proceedings. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b). If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order.

If, after opportunity for a hearing, your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.237). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 30 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

In your correspondence on this matter, please refer to **CPF 4-2008-5013M** and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



R. M. Seeley
Director, Southwest Region
Pipeline and Hazardous
Materials Safety Administration

Enclosure: *Response Options for Pipeline Operators in Compliance Proceedings*